

The diagram illustrates the organization of the 3' region of the human $\alpha 1(I)$ collagen gene. It shows a linear sequence of exons and introns. Exons are represented by boxes, and introns by lines. Labels above the exons indicate specific features: BK (break), S (splice site), FG (first generation), D (disease), PSB (polycomb binding site), and PC1 (polycomb binding site). The diagram is divided into three regions: RG2, RG3, and RG1. The regions are labeled with their respective exon numbers: RG2 (exons 1-6), RG3 (exons 7-8), and RG1 (exons 9-11). The regions are also labeled with their respective intron numbers: RG2 (intron 1), RG3 (intron 2), and RG1 (intron 3).

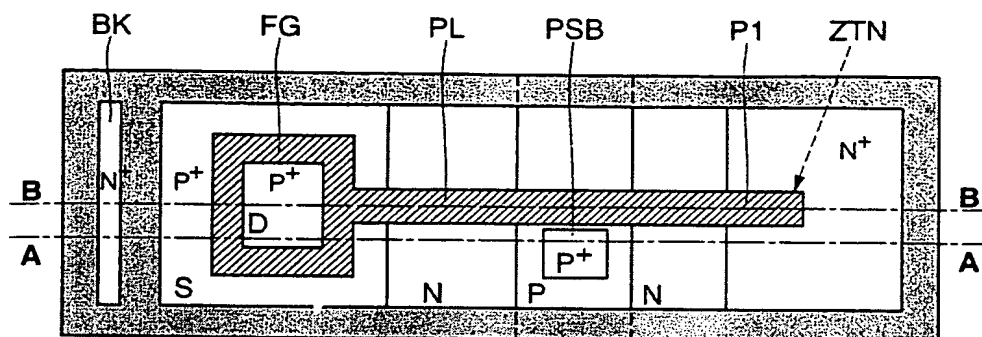
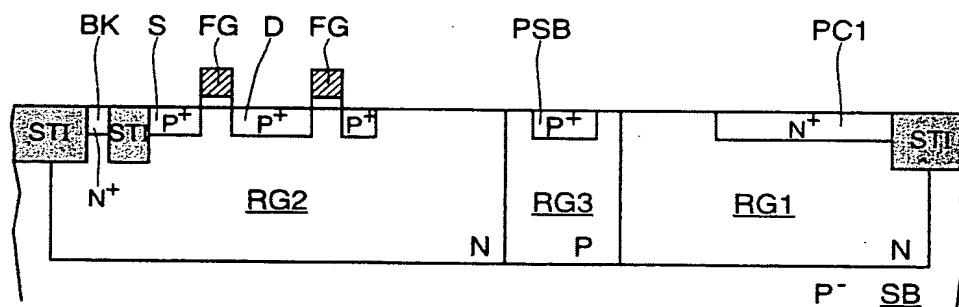
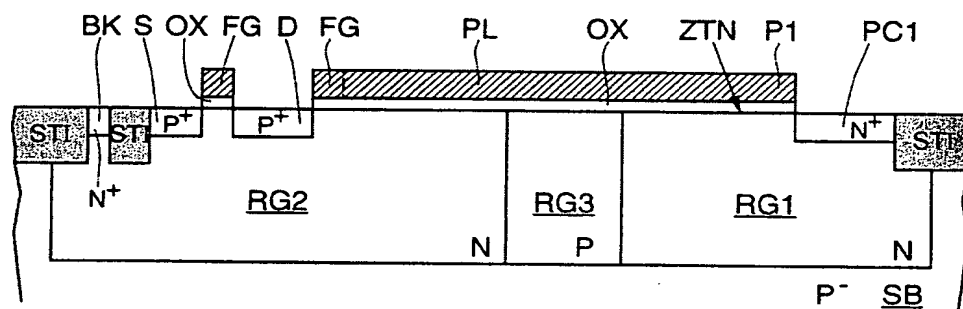
FIG.3FIG.3aFIG.3b

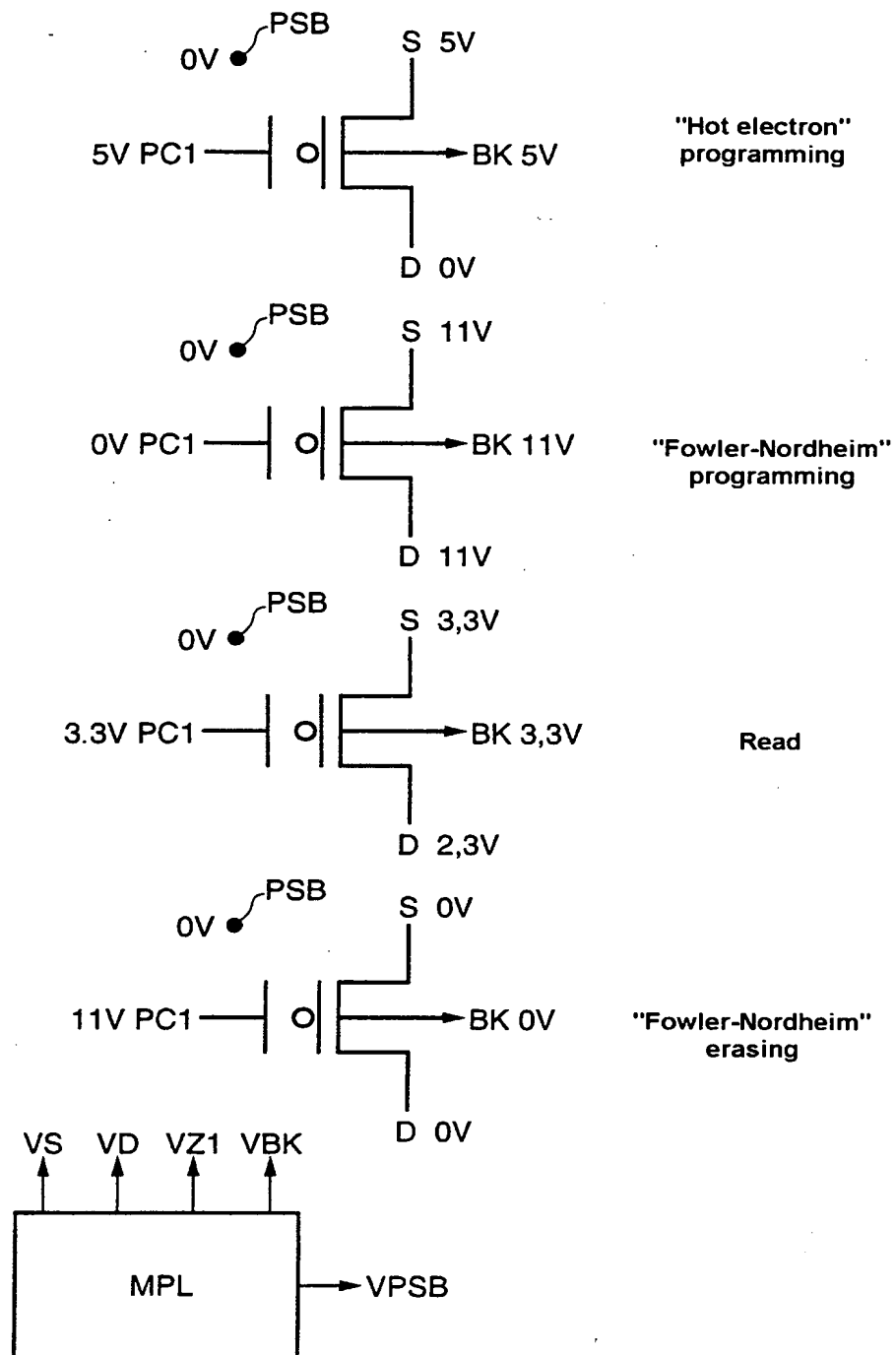
FIG.4

FIG.5

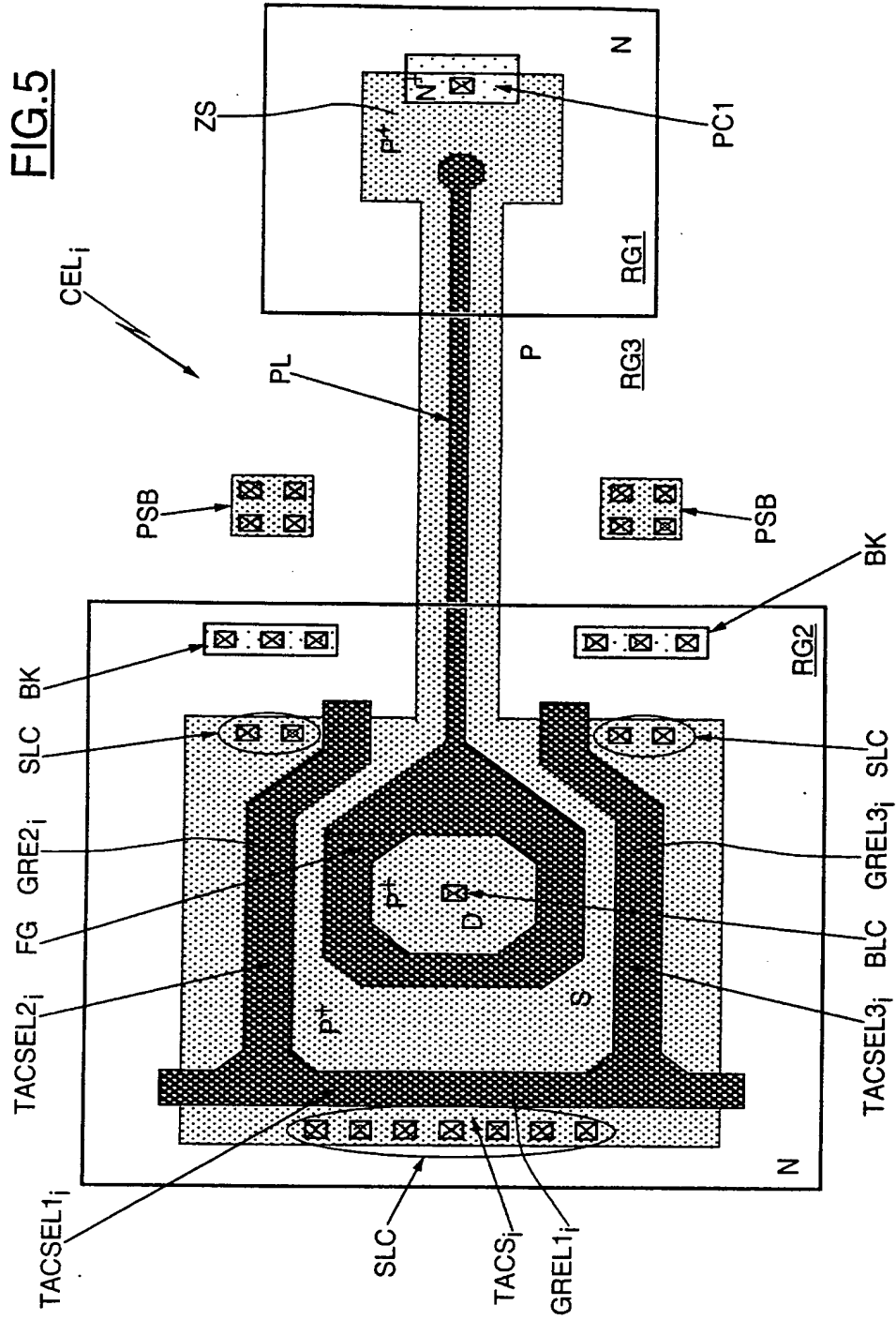
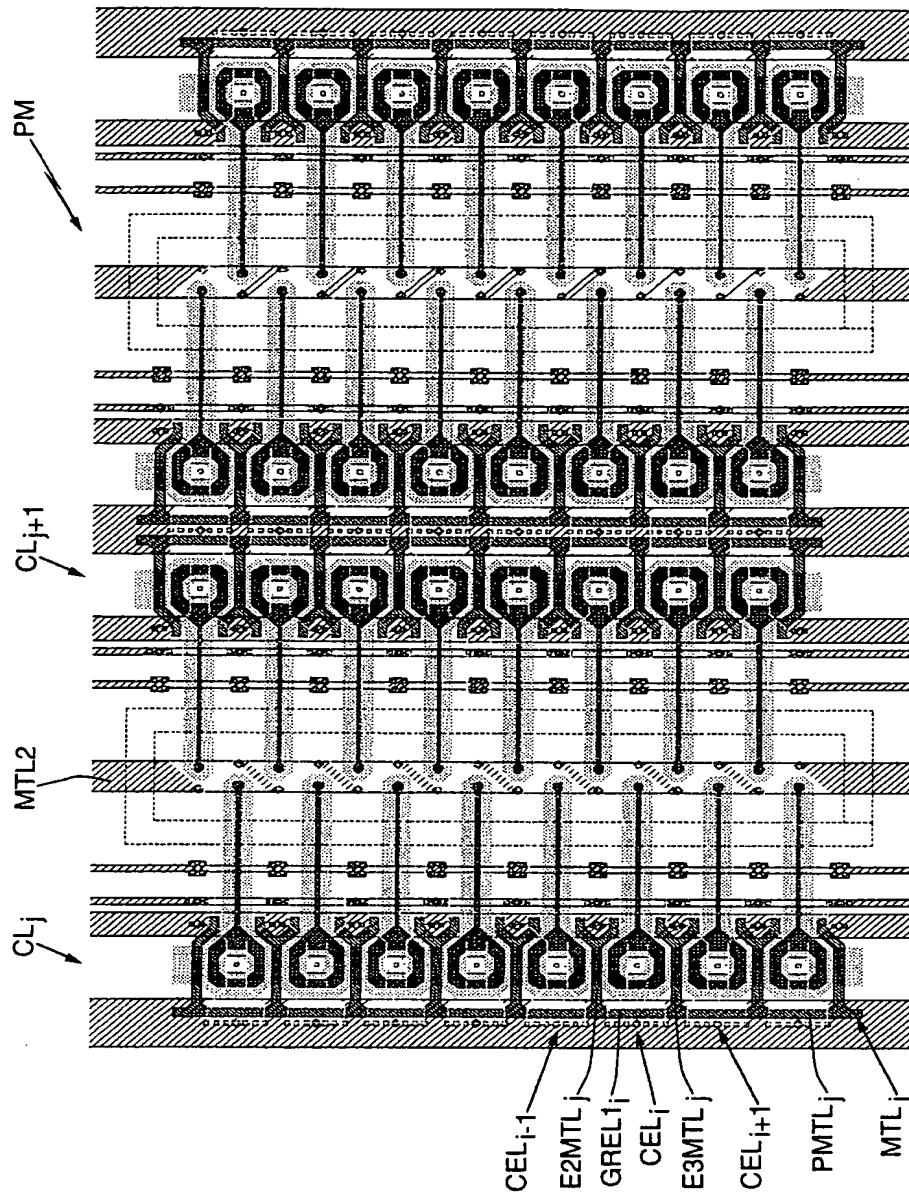


FIG. 6



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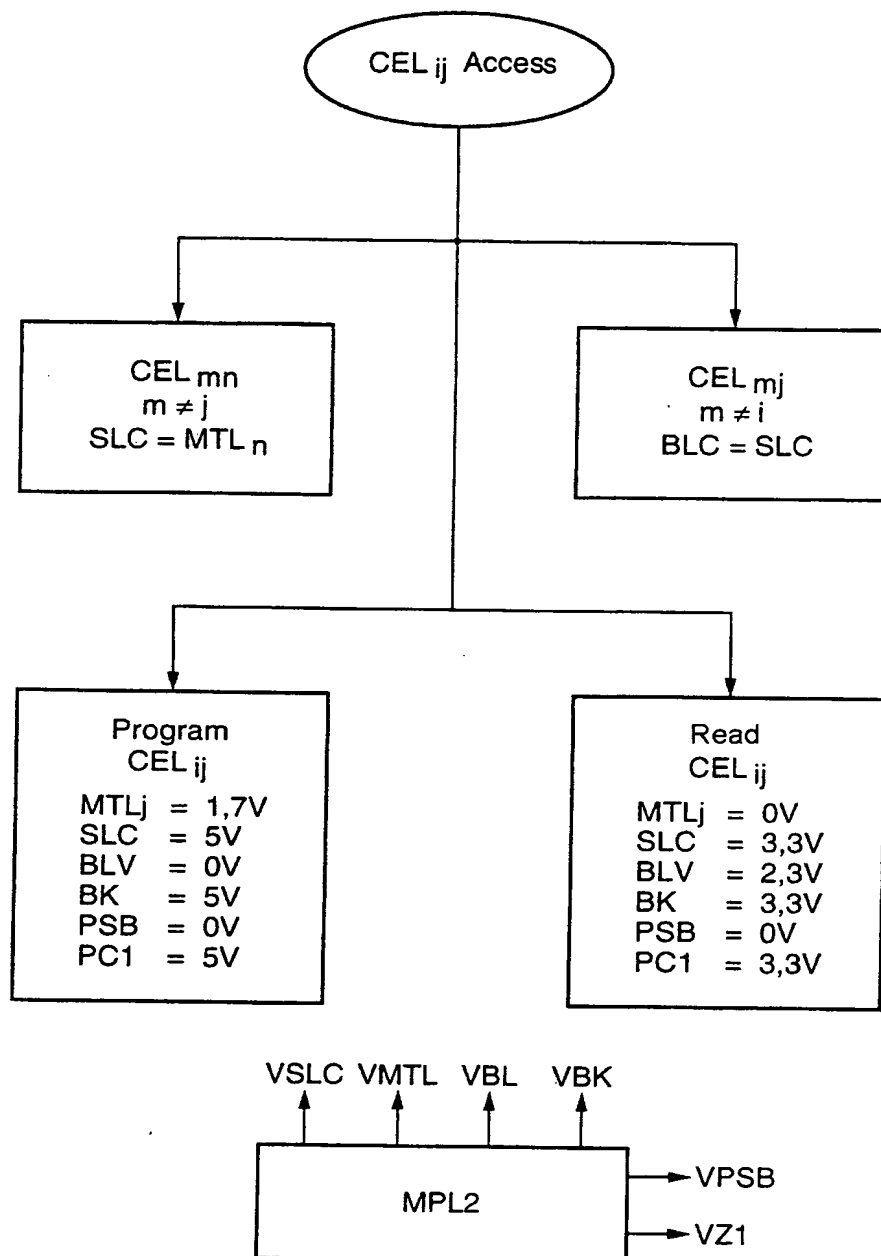
FIG.7

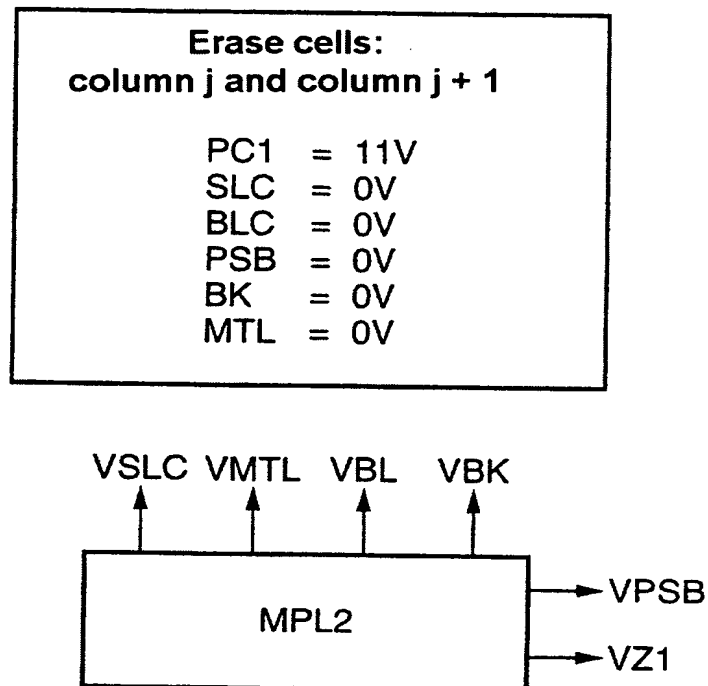
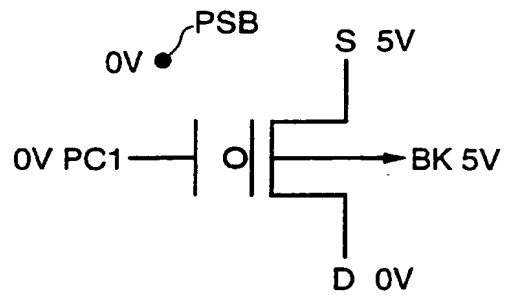
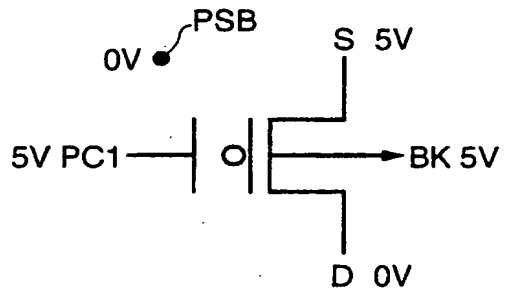
FIG.8

FIG.10

"Hot electron"
programming:
1st stage



"Hot electron"
programming:
2nd stage

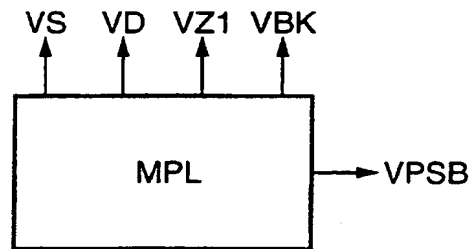
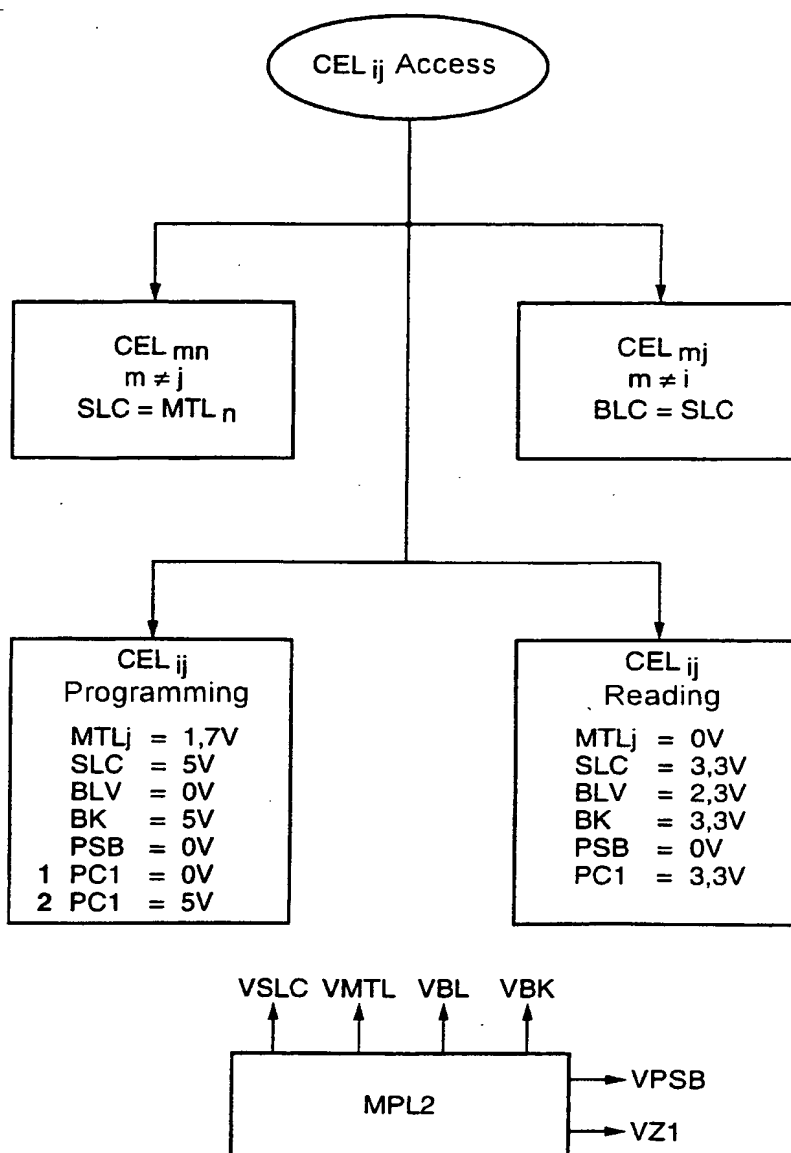


FIG.11



The diagram illustrates a cross-sectional view of a semiconductor device. A central horizontal layer is labeled CEL_{ij} . Below this, a large rectangular region is labeled $RG2$ and contains a central circular feature labeled $PC1_i$. The region $RG2$ is divided into two main sections: N on the left and P^+ on the right. A vertical line labeled $TACS_i$ separates the N and P^+ regions. A horizontal line labeled BL_j runs through the center of the $RG2$ region. Above the $RG2$ region, there are several layers: $GRTACS_i$ (a vertical line), WL_i (a horizontal line), WLP_i (a horizontal line), and FG (a horizontal line). To the right of the $RG2$ region, there is another rectangular region labeled $RG1$ containing a central circular feature labeled $PC1_j$. This region is surrounded by an N^+ layer. Below the $RG1$ region, there are two PSB (Passivation Surface Barrier) layers, each represented by a square with an 'X' inside. A horizontal line labeled PL (Passivation Layer) runs through the center of the $RG1$ region. A vertical line labeled BK_i (Back Gate) runs through the center of the $RG2$ region.

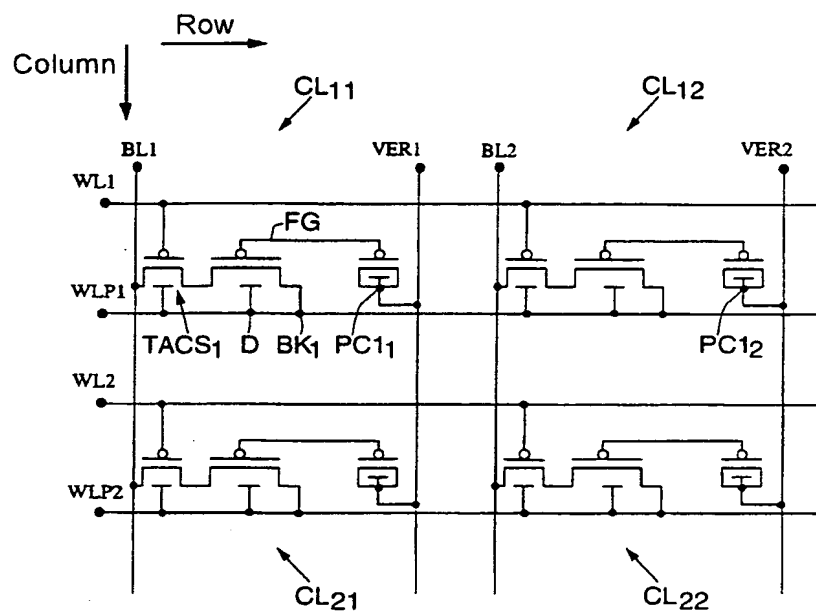
FIG.13

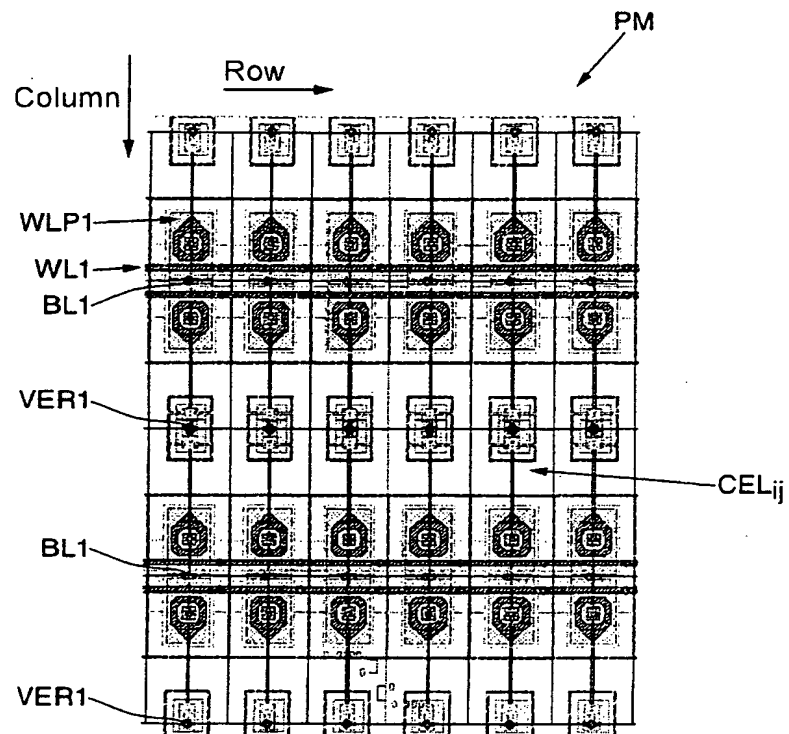
FIG. 14

FIG.15

Config.	BL1	WL1	WLP1	VER1	BL2	WL2	WLP2	VER2
1	3.3	6.6	6.6	0.0	3.3	0	3.3	3.3
2	0.0	0.0	0.0	6.6	0.0	0.0	0.0	6.6
3	3.3-ε	0.0	3.3	3.3	3.3-ε	3.3	3.3	3.3

